



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,968	10/26/2001	Earl D. Cox	01-PAN-02	8735

30827 7590 02/09/2005

MCKENNA LONG & ALDRIDGE LLP  
1900 K STREET, NW  
WASHINGTON, DC 20006

EXAMINER

STEELMAN, MARY J

ART UNIT	PAPER NUMBER
----------	--------------

2122

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/032,968

Applicant(s)

COX ET AL.

Examiner

Mary J. Steelman

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/26/01, 04/26/02, 01/28/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 01/13/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-11 are pending.

#### *Claim Objections*

2. Claim 2, page 19, line 20, recites, "incorporating the ID...", should be --incorporating the ID...-- Add an 'r' to incorporating.

Claims 6 recites, "The method according to claim 6...", should be --The method according to claim 5...-- Change the '6' to a '5'. Examiner will treat claim 6 as if it depends upon claim 5.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 2 recites the limitation "The ID of said process" in line 20. There is insufficient antecedent basis for this limitation in the claim.

#### *Specification*

5. Page 6, lines 19-20 recite "Both types of BeXs have exactly the architecture." Should this recite 'exactly the same architecture'?

6. The use of the trademark BLACKBOARD has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

7.35.01 Trademark or Trade Name as a Limitation in the Claim

Art Unit: 2122

Claim 6 contains the trademark/trade name Blackboard. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a server and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pre Grant Publication 2004/0153533 A1 to Lewis.

Per claim 1:

A method for constructing a uniform event representation for an event in accordance with a uniform data model, said method comprising:

Art Unit: 2122

[0116], page 10 and 11, “A method for management of a multi-domain communication network...”, [0023] “...suited for a particular networking technology...manages each separate technology domain...with respect to fault, configuration...performance and security (FCAPS) management...”, [0028] “Technology domains are comprised of elements that are managed devices, networks, system and applications. A **managed device is any device that can be modeled in a network management system...**” (emphasis added)

-selecting a category, to which said event belongs, said category being selected from a plurality of categories defined by said uniform data model;

[0028], “Domains are constructed in accordance with the particular organizational principle by which **elements are grouped** (selecting a category) in a particular network...may be grouped in any way that serves as an aid in understanding and managing the network. Common grouping principles include grouping with respect to topology, device type, location, managerial domains, and/or the organizational structure of a network enterprise.” (emphasis added); [0035], “Intra-domain management layer...**receives data** from management system...**on events** within domain (events belong in domain)...”(emphasis added)

-selecting at least one measurement type, based on which the event is triggered, said at least one measurement being selected from a plurality of measurement types defined by said uniform data model;

[0035], “...receives data...on events within domain and then maps certain of them into alarms and possible actions...”; [0059], “...measurable parameters must be found to include in the

Art Unit: 2122

agreement...performance measure...”; [0079], “...domain-specific event correlation...entails observing cause-and-effect relations between certain events, inferring an alarm from a set of related events, and/or identifying the ‘culprit’ event in a ‘misbehaving’ enterprise...collect numerous events and statistics (select a measurement type) as it monitors the elements in its respective domain...”

-incorporating quantitative values of said at least one measurement type into said uniform event representation, said quantitative values being acquired by a process in which said event is detected;

[0079], “...domain-specific event correlation...entails observing cause-and-effect relations between certain events (detect event), inferring an alarm from a set of related events, and/or identifying the ‘culprit’ event in a ‘misbehaving’ enterprise...collect numerous events and statistics (quantitative values) as it monitors the elements in its respective domain...”

-incorporating qualitative assessment for each of said at least one measurement into said uniform event representation, said qualitative assessment being generated by said process.

[0079], “...domain-specific event correlation...entails observing cause-and-effect relations between certain events (detect event), inferring an alarm from a set of related events, and/or identifying the ‘culprit’ event in a ‘misbehaving’ enterprise...collect numerous events and statistics (qualitative assessment) as it monitors the elements in its respective domain...”; [0091], “Performance management addresses processes that ensure the most efficient utilization of network resources and their ability to meet user service-level objectives. It evaluates

Art Unit: 2122

(assessment) and reports on the behavior of network resources and ensures the peak performance (qualitative) and delivery...”

Lewis disclosed a comprehensive network management system: technology domains comprised of managed networks. [0028], “A managed device (the elements of the domains) is any device that can be modeled in a network management system. Lewis expressed the need for [0006] “a consolidated automated management tool that can manage networks and services that extend across multiple interconnected underlying networking technologies and associated system and applications, thus providing management for multi-domain services.” He disclosed [0035] that data was received on ‘events’ (uniform event representation) within the domain (a category selected) and processed by functions at multiple layers of the system. Lewis disclosed that the processing of various measurement types would result in events being mapped to alarms and possible actions. While disclosing [0059] that ‘measurable parameters must be found’, he failed to disclose specific details related to quantitative values and qualitative assessments. He did provide, as examples, [0083] “A response time management system...can raise a problem regarding sluggishness (a qualitative measure)...” and the suggestion [0091] “ensures the peak performance (a qualitative measure)...” Lewis did suggest that the management layer is concerned with [0087] “bandwidth control, performance, quality of service, end-to-end flow control and network congestion control”, all measurable quantitatively and qualitatively.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to have modified Lewis’ invention to include applicant’s specific claim limitations

Art Unit: 2122

because Lewis broadly disclosed a ‘uniform event representation for an event in accordance with a uniform data model’ using a consolidated automated management tool [0006], and while disclosing the same concepts, Lewis used different terms to express the same meaning.

Per claim 2:

-generating an event ID for said event to be incorporated in said uniform event representation;

[0079], “...domain-specific event correlation...entails observing cause-and-effect relations

between certain events, inferring an alarm from a set of related events, and/or identifying the

‘culprit’ event (event identification) in a ‘misbehaving’ enterprise...collect numerous events and

statistics as it monitors the elements in its respective domain...” Identified events are analyzed

by system.

-incorporating the ID of said process, where said event is detected, in said uniform event representation;

[0079], “...domain-specific event correlation...entails observing cause-and-effect relations

between certain events, inferring an alarm from a set of related events, and/or identifying the

‘culprit’ event in a ‘misbehaving’ enterprise...collect numerous events and statistics as it

monitors the elements in its respective domain...” Identified events are analyzed by system.

-incorporating at least one piece of evidence, based on which said event is detected, in said uniform event representation; and incorporating a description about said event in said uniform event representation.



Art Unit: 2122

[0079], "...domain-specific event correlation...entails observing cause-and-effect relations between certain events, inferring an alarm from a set of related events, and/or identifying the 'culprit' event (event identification) in a 'misbehaving' enterprise...collect numerous events and statistics (collect at least one piece of evidence) as it monitors the elements in its respective domain..." Identified events are analyzed by system.

Per claim 3:

-said categories include meta-category, external transaction category, internal category, operating system category, application category, and network category.

[0024], "...a management system...manages each separate technology domain within a multi-domain network...A higher-level system (meta-category), called a comprehensive management system performs the task of managing the individual management systems...; [0030], "The comprehensive network management system of the invention is comprised of conceptual layers...At the lowest level...the enterprise and technology domains...The intermediate level...is an intra-domain management level (internal category, collects data on events and may send notice to higher level)...The highest level is an inter-domain management level (external transaction category – see [0037-38] inter-domain management layer receives data collected from intra-domains and maps alarms and actions) ...; [0040], "The purpose of the comprehensive management system of the invention is to manage all of the types of devices, media, networks (network category), computer systems, software applications (application category), and services that are associated with a technology domain...virtual private networks (VPN), optical networks, Quality-of-Service networks, active programmable networks..."

Art Unit: 2122

Per claim 4:

-said measurement types include availability, response time, throughput, and service readiness.

[0051], "...management system that can monitor the throughput...and infer reasonable measures..."; [0059], "From a QoS standpoint, service providers should be able to manage different kinds of data streams based on service priority...minimal latency...periodic delays (availability)..."; [0083], "A **response time** management (RTM) system...determine whether the cause of the problem has to do with the application, the computer system...or the network...isolating the root cause..." (emphasis added); [0085], "The business layer...seeks to capture information that may be used to determine whether business objectives and policies are being met...The service management layer is concerned with...The enterprise network management layer is concerned with...issues such as bandwidth control (throughput), performance, quality of service (availability), end-to-end flow control and network congestion control (service readiness)..."

Per claim 5:

A method of using a uniform data model, said method comprising:

-posting zero or more events, described in uniform event representation constructed based on uniform data model, in an event pool by a process where said zero or more events are generated; and accessing an event, described in uniform event representation constructed based on uniform data model and posted in said event pool, by a process.

Art Unit: 2122

See rejection of limitations in claim 1 above. Also: [0033], "...management system A collects data from respective technology domain A and makes it available to intra-domain data collection function. This data is then provided to, and utilized by, inter-domain management layer to determine what intra-domain instructions should be sent from intra-domain instruction function A to management system A for implementation in respective technology domain A."; [0035], "Intra-domain management layer A...receives data...on events within domain A and then maps...into alarms and possible actions..." (management system collects data related to events and data collection functions process the collected events); [0082], "...receive input data from lower-level network or element management systems, process the data, and output data in the form of reports and recommended actions."

Lewis disclosed a comprehensive network management system: technology domains comprised of managed networks. [0028], "A managed device (the elements of the domains) is any device that can be modeled in a network management system. Lewis expressed the need for [0006] "a consolidated automated management tool that can manage networks and services that extend across multiple interconnected underlying networking technologies and associated system and applications, thus providing management for multi-domain services." He disclosed [0035] that data was received on 'events' (uniform event representation) within the domain (a category selected) and processed by functions at multiple layers of the system. Without disclosing an 'event pool' specifically, Lewis did disclose an [0035] "intra-domain event correlation engine A (FIG. 1, #136), which receives data from management system A on events (an event pool) within

Art Unit: 2122

domain A and then maps (accessing an event, by a process) certain of them into alarms and possible actions...”

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to have modified Lewis’ invention to include applicant’s specific claim limitations because Lewis broadly disclosed ‘an event pool’ and ‘accessing an event...by a process...’ using a consolidated automated management tool [0006]. While disclosing the same concepts, Lewis used different terms to express the same meaning.

Per claim 6:

-said event pool includes a blackboard server.

FIG. 1, #142, 136, 156, 166, each network in the interconnected networks has a server. Abstract, “...networks and associated systems and services that comprise multiple, interconnected network technologies...”, [0001], “The invention relates to management of communication networks and...to comprehensive management of a network comprised of multiple interconnected networking technologies and associated systems...”

Per claim 7:

A method for using a uniform data model, said method comprising:

See claim limitations as addressed in claim 1 above.

-generating a uniform event representation for an event by a process where said event is detected, said uniform event representation being constructed in accordance with said uniform data model;

Art Unit: 2122

[0028], “Technology domains A, B, and C are comprised of elements that are managed devices, networks, systems and applications. A managed device is any device that can be modeled in a network management system...include not only hardware devices...but also software applications. Domains are constructed in accordance with the particular organizational principle by which elements are grouped in a particular network...elements may be grouped in any way that serves as an aid in understanding and managing the network...”

-sending said uniform event representation for said event, by said process, to a different process to notify said different process about the occurrence of said event.

[0033], “...management system collects data...data is then provided to (sent by a process to a different process), and utilized by, inter-domain management layer to determine what intra-domain instructions should be sent...”

Lewis disclosed a comprehensive network management system: technology domains comprised of managed networks. [0028], “A managed device (the elements of the domains) is any device that can be modeled in a network management system. Lewis expressed the need for [0006] “a consolidated automated management tool that can manage networks and services that extend across multiple interconnected underlying networking technologies and associated system and applications, thus providing management for multi-domain services.” He disclosed [0035] that data was received on ‘events’ (uniform event representation) within the domain (a category selected) and processed by functions at multiple layers of the system.

Art Unit: 2122

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to have modified Lewis' invention to include applicant's specific claim limitations because Lewis broadly disclosed a 'uniform event representation for an event in accordance with a uniform data model' using a consolidated automated management tool [0006], and while disclosing the same concepts, Lewis used different terms to express the same meaning.

Per claim 8:

-receiving, by a process, a uniform event representation, constructed in accordance with said uniform data model, from a different process, said uniform event representation describing an event occurred and detected by said different process.

Higher-level systems receive data from lower-level systems; [0082], "The invention therefore requires correlation engines for both lower-level...and for higher-level...systems (higher level receives event representation from lower level)...Their sole function is to receive input data (describing an event occurred and detected)...process the data, and output data in the form of reports and recommended actions."

Per claims 9 – 11:

-said process includes a behavior expert.

[0091], "Performance management addresses processes that ensure the most efficient utilization of network resources and their ability to meet user service-level objectives. It evaluates and **reports on the behavior** of network resources and ensures the peak performance and delivery..." (emphasis added); [0102], "...data is collected...by use of an appropriate data

Art Unit: 2122

collection function. The data is then interpreted...The manner of interpreting data may be...**expert systems...**" (emphasis added)

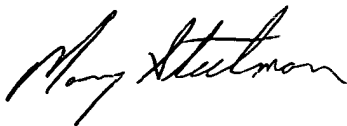
*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached at (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman



02/02/2005



**TUAN DAM**  
**SUPERVISORY PATENT EXAMINER**